THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE

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☞ When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

American Farmer Establishment.

BALTIMORE: TUESDAY, NOVEMBER 4, 1834.

FARMERS PAY ALL (?)—General Gaines in his letter to the Governor of Georgia on the subject of the Atlantic and Mississippi Rail Road, takes the following sound view of the operations of Commerce in relation to Agriculture. We confess however that we cannot see how the farmer "pays all," or any further than he is a *consumer*; for we hold that the merchant is indeed only a factor assessing and regulating charges between the producer and the consumer of *all commodities* whether of Agriculture or of Manufactures. The Agriculturist is unquestionably *the great* producer, No. 1 of the trio, and could live quite comfortably without the aid of either the mannfacturer or the merchant, while neither of the latter could prosper without the former.

The agriculturists contribute mainly to FEED ALL and for the most part to CLOTHE ALL *the human family who enjoy the blessings of civilization.* No civilized man, woman, or child, of the American Republic, particularly, can enjoy health and comfort for many hours in succession, nor even life itself for many days time, without the aid of some of the products of agriculture. To say that agriculturists are as dependent on non-agriculturists, because the latter buy, and eat, and wear some of the products of agriculture, as the latter are on the former, is almost as absurd as it would be to say that the ever-living purveyor of vital air and pure water is dependent on man, because man necessarily breathes air every instant of his life, and drinks water every day of his life. *The agriculturists, moreover, pay all expense of transportation in their comuerce with all other classes of the human family*—whether carried on in the products of agriculture or in their exchange for foreign merchandize, or the fabrics of domestic manufactures. The merchant is as emphatically the *agent* or *factor* of the agriculturist, as the public representative elected by a people enjoying the privilege of self-government is the agent or servant of that people. The merchant makes no trip to the *great city to which the South and West have long paid a voluntary tribute of as many millions per annum as would construct the proposed Rail Road, a work that would forever put an end to that* HUMILIATING TRIBUTE—the merchant makes no trip to that great city but at the expense of his agricultural costomers: they pay the expense of his long journeys to the northern or eastern market, the expense of his theatrical amusements, the expense of trips of pleasure to Saratoga, and the tax levied by the great northern State on the auctioneer, of whom the merchant buys his goods—a tax more than sufficient for the liberal support of any one of these economical western or southern State Governments. They (the agriculturists) pay also not whatever the merchant chooses to contract for, for the transportation of his merchandize, its insurance, &c. but a large per centage on the amount so expended by him. Nevertheless, we cannot but admit that an honest, industrious merchant, is a very useful member of the community, as is an honest industrious lawyer, doctor, or mechanic—all, all such are honorable and worthy members of society; but they are all mainly dependent on the cultivators of the soil. If, then, as I contend, this great and independent class of the American family, constituting the main pillars of the Republic, FEED ALL, and CLOTHE ALL, and PAY ALL EXPENSES OF TRANSPORTATION, surely they will never hesitate to unite in favor of a system of internal improvements, which will reduce the expense of transportation *from* 30 *dollars to one dollar per ton;* or, in other words, from 60 *cents per ton per mile, to two cents per ton per mile!* More especially, when it is palpable that this immense reduction in the price of freight is inseparably connected with, and must necessarily result from, a system which will inevitably and forever render our merchants and ourselves independent of northern and eastern cities, and make our own southern and western sea-ports in all respects at least equal, and, in some respects, superior for commercial purposes, to those of any other part of the United States.

The following glimpse at a picture of the great west is taken from the same letter.

To say nothing of what must ere long be the surplus agricultural products of EIGHT HUNDRED MILLIONS OF ACRES OF RICH CULTIVABLE SOIL, favored with every advantage of a healthful and productive climate, in the valley of the Mississippi, where, though an increasing current of population is pouring upon this great expanse of surface, at the rate of nearly half a million of free people per annum, cultivation is apparently in its infancy, the greater part of the country exhibiting scarcely an acre in a thousand ever touched by the implements of husbandry. Nay, I have travelled 450 miles nearly in one direction, from Clay county, Mo. to Council Bluffs, and thence towards the falls of St. Anthony, over as rich land as I ever beheld, without seeing 500 acres of land in a state of cultivation, or 500 acres of uncultivable land. To say nothing of what may be the immense surplus products of 800,000,000 of acres of rich soil, whenever a hundredth part of it is put into a state of sound cultivation—products which surely will not be allowed to depend on one or two inconvenient markets, always expensive, and often glutted and uncertain—which products will and must find outlets and a choice of markets, such as the eastern and southern Atlantic States would afford by the proposed work—To say nothing of these incalculable products of the soil, I will conclude my views upon this branch of the subject, with an allusion to the *mineral wealth* of a small part of the valley of the Mississippi. *The Lead Mines* embrace, not a few acres, but MANY *millions of acres* of as great and continuous masses of as rich lead ore as any in the known world, averaging upwards of 80lbs. of merchantable lead to the hundred pounds of ore. It is believed that a contract to carry to Charleston or Savannah, a moiety of the Lead that could now be engaged at the present low prices, to be first delivered at Memphis, would, at two cents per ton per mile, secure to the rail-road proprietors, $500,000 per annum.

MARYLAND HORTICULTURAL SOCIETY—NOV. 1.

At a meeting of the society this day, the following resolution was adopted:

Resolved, That the following gentlemen be appointed a committee to take into consideration the expediency and practicability of procuring a lot for the purpose of building a Hall for the use of this society.

COMMITTEE—Messrs. *Joseph King, jr., B. I. Cohen, Wm. Gwynn Jones.*

The following gentlemen were proposed and duly elected members of this society, viz. Mr. *Henry Didier*, Mr. *John Ellicott*, Mr. *Elias Ellioctt*, Mr. *Edward Gray.*

ARTICLES EXHIBITED.

By Mr. Wm. Yeats, 3 very fine Turnips.

By Mr. John Feast, a new variety of culinary Sage; a branch of Euonymus atropurpurea, full of fruit; Crasula lactea; Garden Monthly Rose; pink Noisette Rose; Jacobeas, and five varieties of Chrysanthemums.

By Mrs. Geo. H. Keerl, a fine specimen of crimson Anemone flowered Dahlia.

GIDEON B. SMITH, Cor. Sec.

SUN-FLOWER SEED—CURE FOR FOUNDER.

"The seeds of sun-flower," says a correspondent of the Zanesville Gazette, "are one of the best remedies known for the cure of founder in horses. Immediately on discovering that your horse is foundered, mix about a pint of the whole seed in his feed, and it will effect a perfect cure." The seed should be given as soon as it is discovered that the horse is founded.

THE FARMER.

We copy from the Penny Magazine, the three following articles on the diseases of wheat. They cannot but prove highly interesting to farmers generally. Since we marked the articles for insertion, we have received the Farmers' Register for October, in which we find these same articles, preceded by notes by the editor of the latter, which also we copy.

DISEASES OF WHEAT.

[Notwithstanding all the labor of agriculturalists and of the men of science who have written on the diseases of wheat, there are few subjects more enveloped in obscurity, or offering more difficulty to the novice who endeavors to investigate the causes of any of the many diseases to which this plant is subject. It is not so much on account of the errors and mistakes of the various writers, (considerable as they doubtless are,) as to the facts they have asserted, that the difficulty has arisen, as to the want of *clearness and uniformity* in the use of names, and the uncertainty as to what disease is meant by any one particular name.—The terms *blight*, *mildew*, *rust*, *blast*, *smut*, *scab*, *stud*, *stunt*, have been used in either England or this country, so loosely, that it cannot be known what is meant by either, without a very particular description of the symptoms of the disease: and the symptoms are seldom described plainly enough for this end. A great service might be rendered by any person, who, from his acquaintance with the actual diseases, and with what has been published concerning them, could adjust properly terms and descriptions, and merely give a clear account of the opinions entertained in England and America, of the causes and remedies of the diseases of wheat, and how far those of the one country are identical with those of the other. This would enable us at least to profit by the knowledge already existing, but which is sealed up from most persons by the improper use of names, either by the writer or reader—and doubts are thus created, even as to the terms that are properly applied. But far greater benefits might be conferred on agriculture in this respect, if scientific men would pursue the investigation, and not only define the diseases, but search out their causes, and thence the remedies.

The three following papers on as many different diseases in wheat, are uncommonly satisfactory. The particular descriptions given, leave no doubt as to the identity of the first two with those we know as the *smut*, and the *blast* or *black-head*.—The writer has traced these diseases to their hidden causes by a course of patient and careful investigation—and thence has correctly deduced that the proper means to avoid the evil is to destroy on the seed wheat, the sources of the diseases which he had there discovered. Without this course of reasoning, or knowing the cause of the disease, farmers have accidentally found the benefit of liming the seed to prevent smut, ("the pepper brand") in wheat—and an experiment published in the Farmers' Register, (Vol. 1. p. 275) shows the like benefit from a similar treatment of oats infected with the blast, (or "dust brand.") These coincidences of accidental practice with theoretical reasoning are highly satisfactory: and though, in these cases, accident had discovered the remedy more early than science had made known the cause, it does not therefore lessen the value of the latter mode of investigation. A very similar discovery has lately been published (page 219 of Farm. Reg.) of the eggs of the very destructive turnip fly being discovered on the seeds, *before* any effectual means had been found to arrest its ravages. If this fact is established, it leads at once to an obvious mode of destroying the insect, by some kind of wash for the seeds. The disease of wheat described last in order by the writer if it belongs to this country, is not known to us, but may be so to more close observers.

The descriptions of the author are accompanied by a number of figures, which serve, as well as his descriptions, to prove the identity of the first two diseases with those above named. But these figures are not necessary to farmers who know the actual diseases; and others which represent microscopic fungi and animalculæ, would be of no use to any who did not seek for the originals with powerful magnifying glasses. To save a considerable expense therefore, the figures are omitted, and also those passages which merely refer to the figures.]

THE SMUT BALLS OR PEPPER BRAND.

[From the Penny Magazine.]

[We are indebted for the following interesting paper to Francis Bauer, Esq., a gentleman who has attained a most deserved celebrity for his valuable discoveries connected with the diseases of grain, the most important article of human food.]

The existence of this destructive disease in wheat has long been known to every agriculturalist in England, as well as by those on the continent; but the real cause of it is yet very little known; not only by the practical cultivator, but even by scientific authors. Such erroneous and contradictory opinions have been advanced that the farmer cannot possibly derive any satisfactory information from them. I hope, however, that the following observations and illustrations of facts may be acceptable to some of the numerous readers of the Penny Magazine.

This disease is occasioned by the seeds of an extremely minute parasitic fungus, of the genus *uredo*, being absorbed by the roots of the germinating wheat grains and propelled by the rising sap, long before the wheat blossoms, into the young germen or ovum, where the seeds of the fungi vegetate, and rapidly multiply, thereby preventing, not only the fecundation of the ovum, but even the developement of the parts of fructification. In consequence no embryo is produced in an infected germen, which however continues to grow as long as the sound grains do, and, when the sound grains arrive at maturity, the infected ones are generally larger than, and are easily distinguished from, the sound grains, by their darker green color, and from the ova retaining the same shape and form which they had at the time when infection took place.

The name of the disease is also as undecided and various as the hitherto supposed causes of its existence, the most prevailing names in England, being *Smut Ball*, Pepper Brand, and Brand Bladders; and many others have been given to it, not only by the farmers in almost every county, but also by scientific naturalists.

No author has yet been found who mentions or describes this species of *uredo*, the distinguishing characteristic of which being its extremely offensive smell; I think the most proper specific name for it would be that of *uredo fœtida*.

The earliest period at which I discovered the parasite within the cavity of the ovula of a young plant of wheat (the seed grain of which had been inoculated with the fungi of *uredo fœtida*, and sown the 14th of November, 1805) was the 5th of June, 1806, being sixteen days before the ear emerged from its hose, and about twenty days before the sound ears, springing from the same root, were in bloom. At that early stage the inner cavity of the ovum is very small; and, after fecundation, is filled with the albumen or farinaceous substance of the seed, and already occupied by many young fungi, which, from their jelly-like root or spawn, adhere to the membrane which lines the cavity, and from which they can be easily detached in small flakes with that spawn: in that state their very short pedicles may be distinctly seen. At first the fungi are of a pure white color, and when the ear emerges from its hose the ovum is much enlarged, but still retains its original shape, and, the fungi rapidly multiplying, many have then nearly come to maturity, assumed a darker color, and having separated from the spawn, lie loose in the cavity of the ovum: the infected grains continue growing, and the fungi continue to multiply till the sound grains have attained their full size and maturity, when the infected grains are easily distinguished from the sound ones, by being generally larger, and of a darker green color; and if opened, they appear to be filled to excess with these dark-colored fungi: but the grains infected with the *uredo fœtida* very rarely bursts, and these fungi are seldom found on the outside of the grain; but if the grain be bruised they readily emit their offensive smell, which is worse than that from putrid fish. When the sound grains are perfectly ripe and dry, and assume their light brown color, the infected grains also change, but to a somewhat darker brown, retaining however the same shape which the ovum had at its formation; the rudiments of the stigma also remaining unaltered.

If the infected grain be cut in two, it will be found to consist solely of the uttermost integument of the ovum, filled with the ripe black fungi, without any tract of the embryo or albumen.

Plants of wheat infected with the *Pepper Brand* may be easily distinguished in the field by their size, being generally several inches higher than plants not infected, and larger in bulk; and I have found in all instances a greater number of stems produced from the same root, the ears containing more spickets, and those spickets more perfect grains, than were contained in those of sound plants, of the same seed, and growing in the same field.

One plant, produced from seed which I had inoculated, had twenty-four complete stems and ears, some of the stems with the ears measuring above five feet, every part of the plant proportion-

ally large, and all the ears entirely infected.—Another specimen had eight stems from the same root, five of them were above six feet high, and the ears entirely infected; the other three stems were considerably shorter, their ears smaller, and their grains perfectly sound.

This enlargement of the plant, however, is not to be attributed to the infection, but is undoubtedly the consequence of a luxurious vegetation, produced by a rich or moist soil, which secures and promotes the infection more than a dry or moderately rich soil.

Neither does this disease always affect the entire ear: I found some ears having one side infected, whilst the opposite side was perfectly sound. Sometimes five or six perfectly sound grains are found in an infected ear, and a few thoroughly infected grains are found in an otherwise sound ear. The infected grains are always in the last spicket at the apex of the ear; from which it appears that the infecting seed of the fungi did not reach the ovum before fecundation; in some of these grains a portion of the albumen was formed, but no trace of an embryo existed; but in others there was a considerable portion of albumen, and a perfect embryo formed.

At the time when the sound grains change their color, the fungi, being ripe, cease to multiply; they are all of a globular form, and nearly of equal size, viz. $\frac{1}{1600}$ part of an inch in diameter, Fig. 8 is $\frac{1}{1600}$ part of a square inch on the micrometer; it sustains sixteen full grown fungi of *uredo fœtida;* and this square, being represented of the size of a square inch, English measure, is consequently magnified one hundred and sixty thousand times in superficies, and the sixteen fungi represented in that square are magnified in the same degree; showing that no less than two millions five hundred and sixty thousand individual fungi would be required to cover one square inch.

Fig. 9 represents a fungus not quite ripe, with its short pedicle; and fig. 10 a perfectly ripe one, both magnified one thousand times lineally, or one million times superficially. These figures are thus highly magnified, to show the reticular structure of these fungi, which forms the external membrane; and it appears that the internal substance consists of a cellular tissue.

Fig. 11 represents one of the fungi shedding its seeds, which is only observable when viewed under water. I could never yet see the seeds of these fungi in a dry state, for they then appear to be mixed with some mucous fluid, which causes them to adhere together in hard lumps.

That the seeds of the fungi of *uredo fœtida* are the sole cause of that destructive disease in wheat, the *Pepper Brand*, I think I have fully ascertained by numerous experiments of inoculating even the finest and purest samples of seed-wheat; and if that fact be admitted, it becomes evident that the prevention of it can only be effected by cleansing the seed-wheat so effectually, that every particle of the fungi and their seeds be entirely removed from the grains. But as these extremely minute fungi, when once mixed with the seed-wheat, insinuate themselves into the grooves at the backs and the beards at the tops of the wheat grains I think it almost impossible to dislodge them by the mere process of washing. I once received some samples which had been so prepared, and washed in salt water, and declared to be perfectly clean; but on my putting some of these purified grains into water, in a watch-glass, and leaving them to soak about twelve hours, on then bringing them under the microscope I found many of the fungi floating on the water. This fact convinces me that mere cleansing is no secure preventive of this disease; and that the most efficacious, and perhaps the only remedy for preventing it, is that of depriving the seeds of the fungi of their vitality. To effect this, innumerable remedies have been recommended, and I believe applied by the farmers, but have seldom proved entirely successful. From my own often repeated experiments, though on a limited scale, I am convinced that the best and surest remedy is to steep the seed-wheat in properly prepared lime-water, leaving it to soak at least twelve hours, and then to dry it well in the air before sowing it; but I fear that it will be found very difficult, if not impossible, even by this method, to kill the seeds of the fungi entirely, when the quantity of seed-corn is great; and consequently some infected plants might still be found in large fields.

Steeping and properly drying the seed-corn in the above manner, not only prevents the disease arising from the infected seed-corn, but does also effectually prevent the clean seed from being infected by the seed of the fungi, which might exist in the soil of a field on which diseased wheat had been growing before; and consequently the cleanest samples of seed-wheat should be steeped, as well as the most notoriously infected.

These facts I have ascertained by repeated experiments of strongly inoculating with the fungi seed-corn which before had been properly steeped and dried, and the result has always proved satisfactory, for the infection never took place.

Wheat is the only plant that is liable to be affected by the Pepper Brand, which is occasioned by the *uredo fœtida*. The Smut, or Dust Brand, is also occasioned by an uredo, but of a decidedly different species. F. B.

Kew, February 21, 1833.

THE SMUT, OR DUST BRAND.

This disease, like the *Smut Balls*, or *Pepper Brand*, is occasioned by a very minute parasitic fungus, of the genus *uredo*, which Persoon (in his Synopsis Methodica Fungorum) notices as *uredo segetum*. It is, however, of a decidedly different species from *uredo fœtida*, which occasions the Smut Balls or Pepper Brand, illustrated in my former paper.

The *uredo segetum* is distinguished from *uredo fœtida*, not being much more than one-half the size and by being perfectly scentless; whilst *uredo fœtida* is characterized by an extremely offensive smell. The manner in which *uredo segetum* acts upon the plants which it attacks is also very different, and the effect much more destructive than that of *uredo fœtida*, which only attacks the grains in which it vegetates, but seldom bursts; whereas the *uredo segetum* not only generally destroys the whole ear, but even the leaves and stem. Further, *uredo segetum* attacks not only barley, but wheat and oats; and I have been informed that other species of gramineæ are subject to its attacks, but I have not yet found any such specimens.

I have ascertained, by repeated experiments of inoculation, that the seed of the fungi of *uredo segetum*, like that of *uredo fœtida*, is absorbed by the roots of the germinating seed-corn, and, being so extremely minute, is mixed with and propelled by the circulating sap, and deposited in almost every part, even in the cellular tissue of the plant where these seeds continue to vegetate and multiply rapidly, as well as in every part of the plant where there remains the least vitality. The whole ear is often found entirely destroyed many weeks before the individual florets are quite developed, or the sound ears emerge from the hose. Sometimes, but rarely, the infection takes place after the parts of fructification have been formed, and even after fecundation has taken place; in that case the progress of the disease can easily be observed. The germen is generally the first attacked, and found partially, or half filled with the fungi, then the pistlis, the stigmas, the anthers; and even the extremely tender filaments appear full of black spots which are occasioned by small clusters of these fungi, which vegitate and multiply so rapidly that in a few days the whole ear is completely filled.

In oat-plants such late infection occurs more frequently than in barley or wheat, and the whole panicle often emerges from its hose, to all appearance in a perfectly sound state, or perhaps with only a few infected spickets at its base, but the infection soon spreads visibly through the whole panicle and over every part of the plant; and even when such a partially infected ear is separated from the growing plant, the vegetation and multiplying of the fungi continues as long as any moisture remains in that portion of the plant which has been so separated. I once collected and cut off several such partially infected ears, which I intended to preserve as specimens, and for that purpose I laid them in brown paper to dry them: they were accidently mislaid, and did not come into my hands again till after a period of six or seven months; when, on examination, I found that the whole specimens were consumed by the fungi. I have not the least doubt that the seeds of the fungi are shaken out by the wind; and that even many infected ears and plants are thrown on the soil of a field where such diseased plants have been growing, and that the fungi continue growing and multiplying on the soil, like those on the paper, until they become part of the soil, from which they cannot be distinguished.

I fear it will prove very difficult to find an efficient remedy to prevent, or even to check this destructive disease; and this fear seems strengthened by the consideration of the numerous remedies suggested by many eminent authors, as well in this country as on the continent. That the remedies of these authors should have failed in producing the desired effects is not surprising to me, for I find that the most eminent of them not only confound two or three distinct diseases, but are totally unacquainted with the real cause of any of the diseases: for some consider them caused by insects; some attribute them to blasts of the wind; others consider the disease to be a corruption of the sap of the plant. These, and many other causes, equally erroneous, have been

advanced; but I hope that, if it be admitted that the seeds of the parasitical fungi are the real and only cause of this disease, it will naturally occur to every one, that if the vitality of the seeds of these parasites could effectually be destroyed, the disease would be prevented. That the steeping in lime-water destroys the vitality, I have proved by many experiments; and also that lime-water has the same effect upon the seeds of the *uredo segetum*, as it has upon those upon *uredo fœtida*.

I fear that much difficulty will present itself to the steeping the seed-corn effectively, from the structure of the seed of barley and oats, the kernels of which are so tightly enclosed in the husks, that the lime-water cannot so readily penetrate, and reach the embryo, as in the naked seed-kernels of wheat and rye; but if some ingenious and unprejudiced practical agriculturist would make experiments on a large scale, by which every grain of the seed-corn could be effectually steeped in lime-water, I have no doubt but that the diseases of the *Smut*, or *Dust Brand*, and the *Smut Balls* or *Pepper Brand* would be effectually prevented, and perhaps, after repeating the experiments for a few successive years, these diseases might be entirely eradicated from the land. F. B.

Kew, March 3, 1833.

[We are compelled, however reluctantly, to postpone the other article till our next.]

THE BREEDER & MANAGER.

[From the London Lancet.]

LECTURES ON VETERINARY MEDICINE, *Delivered in the University of London, by Mr. Youatt.*—LECTURE VI.

ON POLYPI OF THE NOSE.—CORYZA.—NASAL GLEET.

Polypus in the Nose.—The first disease of the nasal cavity that will come under our consideration is *polypus* of the nasal passages:—

ON POLYPI OF THE NOSTRILS IN THE DOMESTICATED ANIMALS.

In the Horse.—By a polypus I mean an excrescence or tumour, varying in size, structure, and consistence, attached by a pedicle to a mucous surface. Portions of adipose matter, enlarged glandular bodies, and sarcomatous tumours of different kinds, are occasionally detached from the serous membrane of the abdomen and thorax, and hang loose and floating there; and on account of the horizontal position of the bodies of quadrupeds, they sometimes, in sudden and violent motion, entangle themselves round small portions of the intestines, and produce strangulation and death. The true polypus is attached to mucous membranes, and is usually found in the nostrils, the pharynx, the uterus, or the vagina. Tumours have been found hanging loose in the ventricles of the heart; and in the larger blood-vessels there have been accumulations of the fibrine of the blood, which, in their ramifications, the body and head being in the aorta, or even in the heart itself, and the limbs in the smaller vessels which branch from the aorta, have presented the appearance of an animal singular and frighful, almost beyond description. This is the polypus in the heart, and which, according to the opinion of the farrier, and even of some veterinary surgeons too, has destroyed so many animals.

Nature of the Polypus.—The polypus usually adheres to some portion of the superior turbinated bone, or it has come from some of the sinuses connected with the nasal cavity. It escaped, while small, through the valvular opening under the superior turbinated bone into the cavity of the nose, and there attained its full growth. The polypus of the horse is not the compressible elastic fungous on (*polypus elasticus*) which is described by writers on human surgery as occupying the nostrils of their patients. The bleeding polypus is little known, and the small portion of bloody fluid that often appears at the nostril, proceeds either from the vascular mucous membrane with which the tumour is surrounded, or from the membrane of the surrounding cavity abraded by long and violent pressure.

Some polypi have a fibrous, or almost cartilaginous, structure, and others appear to be composed of various little tumours agglutinated together. They are formed originally under or within the membrane by which the nasal cavity is lined, but no better account can be given of the cause of their appearance than of tumours in other parts of the body. They evidently, however, have a constitutional origin; they are frequently hereditary, and the animal in which they have once appeared is subject to a return of them. By some means, probably the increasing weight of the tumour, and being in a dependent situation, it is gradually detached from its base, and forces with it the soft and easily distensible membrane of the nose. As the polpyus continue to descend, this portion of membrane is farther elongated, and forms the pedicle or root of the tumour: a root it is not, for it is no continuation of the substance of the tumour, but a mere duplicature of its investing membrane. How this may be with regard to the fungous bleeding polypus of the human subject, I am not able to determine. The twisting of the pedicle, and tearing it out by the root, may be good practice with regard to the human being, but cannot be justified where the pedicle is a mere cord by which the polypus is suspended, and forms no continuation or part of its substance. The polypus, when it hangs free in the nasal cavity, is usually of a pyriform or pear-like shape; it is that form which it would naturally assume from the gradual distension of the membrane, pressing on every side of the tumour, and opposing its chief resistance at the base. It varies in weight, from a few drachms to three or four pounds.

Method of Examination.—I will now suppose a veterinary surgeon to be required to examine a horse that has some difficulty of breathing, apparently arising, not from disease of the lungs, but obstruction of some of the air-passages. He finds that there is a greater discharge than usual of mucus from the nostrils, or from one of them, and that mucus is sometimes highly tinged with blood, occasionally pure blood runs from the nose. If he places his hand before the muzzle, as if to ascertain the heat of the breath, he feels an unequal rush of air from the two nostrils, or probably it is felt from one nostril alone. He begins to suspect the real state of the case, and, bringing the horse into full light, he discovers, higher or lower in the nostrils, the rounded base of a polypus. He must, however, take care; he must not mistake the cartilaginous prolongation of the anterior turbinated bone for a polypus, when he sees it spread upon the false nostril, and enlarged and prominent from the general thickening of the mucus coat; nor the prolongation of the posterior turbinated bone, not quite so much developed; nor any rounded clot of blood which may have escaped through the valve under the posterior turbinator, and be retained there by the separated fibrine. This has been done by men of some repute. The case, however, shall be clear enough. How is the surgeon to proceed? Can he lay hold of the polypus by the finger, or the forceps, or (for these tumous do not possess much sensibility) the tenaculum? To ascertain this he will cast the horse, and fix the head in a position to take the greatest advantage of the light. If he cannot fairly get at the tumour by any of these means, he will let it alone; it will continue to grow—the membrane constituting the pedicle will be lengthened—and the polypus will descend, and be easily got at. Time and patience will effect wonders in this and many other similar cases.

The human surgeon speaks of the uncertainty of the appearance of the polypus. In damp weather it enlarges, the pedicle becomes more distensible, and the tumour hangs lower in the nasal cavity. If the weather is dry, and the membrane of the nose dry, the pedicle becomes somewhat dry too, and contracts, and the tumour itself diminishes, and it rises higher in the cavity; and that which can be plainly seen to-day will be invisible to-morrow. I have not had opportunity to observe this in the horse, but in polypus of the vagina in bitches I have found the tumour close to the external orifice, on one day, and on the next day there was not a vestige of it to be seen; and, probably, on the third day it has been lower than on the first, and more easily seized and disposed of; but I confess I have not traced any connexion between these changes and the changes of our variable atmosphere. Here, again, is occasion for the exercise of patience. If we cannot fairly reach the tumour, do not let us go to work at disadvantage; to-morrow, possibly, the pedicle will have lengthened, and we shall have a better chance.

Method of Operation.—We are now bringing down the tumour for operation: we must not use any great force. The polypus with which we have to do is not one that must be torn out by the roots. It is not the fungous bleeding polypus the pedicle of which may be a prolongation and portion of itself. The pedicle here is a mere duplicature of skin; it may be divided in any part of its course, and, divided at any assignable point, the tumour may with equal advantage be removed. Besides this, if the pedicle is attached to the delicate gossamer fabric of the turbinated bone, it cannot be forcibly torn thence without portions of the bone being likewise detached: and, connected with this, we should recollect that there is a disease of the nostril of the horse, which is the occasional result of injury of almost every kind inflicted on the Schneiderian membrane.

The tumour being brought down, a ligature must be passed round the pedicle, and as high up as it can conveniently be placed. If the polypus can be then returned to the nose, the animal will

suffer very little inconvenience; and in a few days the polypus will slough off, and the pedicle will contract and gradually disappear.

If the polypus is so large that it cannot be well returned, when it is brought down, we must notwithstanding, use the ligature. If we draw it but tight enough we shall cut off the supply of blood to the tumour, and we may immediately excise it, although it would be better if a few hours could pass between the application of the ligature and the excision of the part. Except the pedicle is exceedingly thick there will be little or no hæmorrhage. Should some bleeding occur, it will probably soon stop, or may be stopped by the cautery; this should however be avoided if possible, for our object is to produce as little irritation as may be, in the membrane, and the actual cautery will be applied with considerable difficulty in the cavity of the nose.

In very bad cases, when the tumour cannot be drawn without the nose, it may be necessary to slit up the ala or side of the nostril. It will be better, however, not to cut through the false nostril, for it consists of a duplicature of such thin integument, that the stitches can hardly be retained in it, when the horse will be continually snorting at the least inconvenience. It will also be difficult to bring the edges of this thin skin accurately together again, or, if this be effected, there is scarcely life enough in it for the parts readily to unite. The false nostril should be avoided, and the incision made along the lateral edge of the nasal bone, beginning at its apex or point. The flap will then conveniently turn down, so as to expose the cavity beneath; and there will be sufficient muscular substance to secure an almost certain union by the first intention. The nostril being opened, the pedicle will probably be displayed, and a ligature may be passed round it, as already recommended; or, if the pedicle be not actually in sight, it may probably be solicited or pulled down.

A French surgeon has advised, if the pedicle is not even now to be readily got at, to apply the trephine higher up; but it should be recollected that there is little or no chance of finding the pedicle in the superior meatus, and that lower down on the side of the face there is but one spot at which the trephine could be applied without its opening upon the interior of one or the other of the turbinators, where the pedicle never exists, and could not be got at. That spot is where, in the central meatus, the turbinated bones recede from each other, a little below the suture between the nasal and the superior maxillary, and about two-fifths of the distance from the apex of the nasal to the frontal bone.

If, perchance, a fungous bleeding polypus should be met with, and it should be deemed right to detach it with the forceps, let the cautious procedure of the surgeon be adopted. While torsion is used, let there be no pulling at the root. The pedicle will then give way at the weakest part, there will be no hæmorrhage, and there will be no lacerated membrane above, or detached bone, to produce malignant ulcer, or cancer, or glanders. Simple excision is never to be permitted, on account of the impossibility of stopping the bleeding without the cautery, and the difficulty and danger of applying that within the nose.

When a large polypus partially protudes at the nose, and cannot be got fairly down, the farrier's method of cutting away all that can be reached should by no means be adoped. The obstruction within is not removed when the external protrusion is cut away. The animal is not and cannot be in the least degree relieved; but the case will be agravated, for it will probably be necessary to apply the cautery to arrest the hæmorrhage and that will cause inflammation and enlargement, and the cavity will be more distended—possibly the septem will be partly forced into the other nostril, forming another obstruction there, and the very bones of the face will be disunited from each other. The exposed surface of the tumour thus mangled, and the ulcers made by the hot iron, will generally take on a malignant character, and fungus, gangrene, or cancer, will succeed.

An attempt to destroy the polypus by caustics will prove even more absurd and injurious.

Cases of Polypus.—I will conclude by relating one or two cases of polypus. The first is taken from "The Veterinary Instructions," by Chabert, a book not so well known nor so highly valued as it deserves.

A horse in one of the cavalry regiments had been observed gradually to lose flesh, and he was quickly and painfully blown at every little extra exertion of speed. After a while, fœtid matter began to be discharged from off the nostril, and the gland on the same side became enlarged, and the horse was supposed by the serjeant-farrier to be glandered (for there were no cavalry veterinary surgeons then in the French service,) and was treated accordingly. At length, to the confusion and astonishment of the man, a fleshy substance began to appear in the nostril, and which rapidly increased in size. The tumour continued to grow, until a great mass of it protruded, when the farrier, without appearing to be aware of the nature of the disease, or attempting to bring down the protruded part, cut it off No benefit followed; the nostril was still stopped, the breathing laborious, and the horse daily becoming thinner and weaker.

A twelvemonth had now passed since the first appearance of the polypus, when the case attracted the attention of M. Icart, the surgeon of the regiment. More had protruded than at first. It was hard and glistening below, and fungous above; the bones of the nose were disjointed, and the face sadly deformed. He cast the horse, and slit up the nostril; when he not only found it completely filled by the polypus, and the the septum narium bulging into the other division of the cavity, but from long-continued pressure and inflammation, it adhered to the membrane of the nose in so many points, and so extensively, that it was impossible to get round it or move it. He contrived, at length, to fasten a crucial bandage around it, and it was torn out by main force. Four considerable portions of the turbinated bones were brought away with it.

The hæmorrhage was excessive; he, however, filled the nostril completely with tow, and brought the divided edges of the false nostril together by sutures. In three days they were all torn out by the incessant attemps of the animal to get rid of the obstruction; but the horse eventually did well. The polypus weighed two pounds and seven ounces.

M. Rigot, one of the French veterinary professors, relates a case of polypus of the nose which he treated successfully. A small tumour appeared in the right nostril, too high up to be got at. It seemed to occupy the same place, and be of the same size for a considerable time, when it suddenly began to grow. It soon appeared to be as large as a man's fist, and still increased, and occupied the whole cavity, pushing the septum into the left nostril, displacing the bones, and threatening immediate suffocation. It was red, and very hard. The nostril was slit up, the pedicle cut asunder close to the bone, and the cautery applied to arrest the hæmorrhage, and *prevent the reproduction of the tumour.*

A curious case came a few years ago before one of the provincial courts of France. A farmer purchased a four-year-old horse at a fair. A slight discharge was observed from one nostril, accompanied by cough, and some thickness of breathing. This was not thought extraordinary, as it was the *strangle age.* The horse was put to light work, and the usual remedial measures were adopted for his supposed condition; but he became worse, and at length could not be used. The purchaser attempted to return the horse, but this was resisted, on the ground that the term of warranty had expired. The case was brought before the provincial court. A veterinary surgeon was appointed to examine the horse, who deposed that there was a polypus in one of the nostrils, but so high up as scarcely to be seen, and that would have escaped his observation had not his attention been particularly directed to it; and that he believed, from what he could gather of the history of the case, that the polypus existed at the time of purchase. On this the court determined that the horse should be returned, although the term of warranty was expired, on the ground, that it was one of those obscure cases of unsoundness, the existence and the nature of which could not have been discovered within the prescribed time.

Polypus in the Ox.—Of polypus in the nasal passages of cattle there is but one case on record. An instance of it, however, has occurred in my practice. A cow seemed to be anxious to eat and was otherwise in good health; but occasionally she was unable to swallow, and the pallet was returned with an effort resembling vomiting. This increased until she was scarcely able to eat, and was rapidly losing flesh. I caused one of the pieces of wood through which the œsophagus pipe is usually passed to be made with an aperture sufficiently large for my hand to pass. The cow being placed against a wall, and her head tolerably secured by a rope placed round her horns, and drawn up by a pulley passing over a beam, and the mouth-piece well fixed, I passed my hand into the fauces, and distinctly felt a round body, moveable, and attached by a cord, the extremity of which I could not get at,—in fact, a polypus. I seized it with a pair of strong forceps with deeply roughened blades, and attemped the removal by torsion. The third turn being completed, the pedicle gave way, and a polypus nearly half a pound in weight was brought out.

(To be continued.)

THE GARDENER.

Maryland Horticultural Society.

At a meeting of the Council on Saturday evening, 25th Oct. the following Report of the late exhibition was read and ordered to be published:

Report of the Exhibition.

This Society, in accordance with a resolution of the Council, held an exhibition on the 14th and 15th October, at the Assembly Rooms, in Fayette street. It was one of the most splendid, all things considered, that has ever been witnessed in this country. The excessive and long continued drought, succeeded by very early and severe frosts, and these accompanied by a peculiarly uncongenial state of the atmosphere, had rendered our gardens, as it was thought, too barren of flowers to admit of much of a display. But the stimulus of the Horticultural Society excited the spirit of competition, and the tables, pyramids and stands at the hall of the Exhibition, bore ample testimony, that this spirit, when aided by skill and perseverance, is not to be restrained within ordinary bounds. The main object of the Exhibition was the display of Dahlias, a flowering plant of quite recent introduction, and one capable of greater variations in color and form than any other known. Till within a year or two this flower has not been produced here in sufficient variety and abundance to make it the object of an especial exhibition; but this year it was supposed our collections would warrant one, and we think the many visiters to our late exhibition will bear us out in saying, we were not disappointed. And here we may be permitted to remark, that the UTILTY OF THE HORTICULTURAL SOCIETY, and its claims upon the whole community for support and countenance, can no longer be doubted. The splendour of the late exhibition is justly attributable to it; while the evident improvement in our vegetable gardens may fairly be passed to its credit, and we may also claim for it the credit of a high degree of improvement in our fruit orchards, which is already apparent.

The Room, for the gratuitous use of which the Society was indebted to the politeness of Mr. Durocher, the present proprietor, and for which our thanks are hereby tendered to that gentleman,—was admirably calculated for the purpose. It was large, and well lighted by windows on three sides during the day, and at night by the chandeliers belonging to the house. The arrangement of the cut flowers was admirable, and well calculated to show them to the best advantage; for which, as well as for the whole "getting up" of the Exhibition, the gentlemen of the Committee of Arrangement deserve much credit.

The Society was also much indebted to the ladies who politely assisted in the disposition of the flowers, and contributed so largely to the tasteful arrangements, and decoration of the room.

The following were the most prominent objects at the exhibition. If we have overlooked any, it is hoped that it will be attributed to the proper cause, accident, for the Horticultural Society aims to be the beneficent patron of all and of each for the benefit of the whole community, uninfluenced by any minor consideration.

Ornamental Department.

Mr. Samuel Feast exhibited fine specimens of black pepper plant, cinnamon tree, ixora rosea, maranta zerbrina, dracena fera, camphor tree, nerium coronarium, cactus speciosus in full bloom, engrafted upon the cactus tuna, heaths, numerous varieties of roses, &c.; several boquets of cut flowers, and the following DAHLIAS, to wit:—Baltimore belle, crimson and purple, Edmondsonia, dark purple, purple globe; Henry Clay, dark crimson; Lady Russell, rich scarlet; King Solomon, very dark; Levick's incomparable, crimson and white; Major Jack Downing, very deep colored; Cohenia, bright scarlet; William Wallace, dark purple; Whigs of '34, dark crimson—all superb specimens, and others too numerous to particularise, of good varieties.

Mr. John Feast exhibited a splendid specimen of brugmansia (formerly datura) arborea in bloom, banana with fruit and flowers, beautiful specimen; date palm, New Zealand flax, pinus longifolia, mango tree, a fine specimen, hedicheum coronarium, sugar cane, &c.; and the following Dahlias, viz: Morning star, fine crimson; Foster's Constantia, beautiful scarlet; Cambridge surprise, &c.

Mrs. George H. Keerl exhibited the following Dahlias, viz. Lord John Russell, splendid rich scarlet, Amanda, rose color; purple globe, globe feathered scarlet, and General Jackson—all fine and beautiful specimens.

Mr. Gideon B. Smith exhibited the following Dahlias, viz: Ann McKim, a very large rose colored seedling Dahlia; Coal Black Rose, a fine black, seedling; Eliza Mayer, a fine purple, seedling; Mrs. Henry Clay, a fine royal purple, seedling; two very fine scarlet velvet, two superior royal purple, and a splendid crimson velvet, all seedlings; Goliah, a superb lilac, Lady Washington, a superior rose colored, and one hundred and five mixed varieties of seedlings.

Master Daniel Hook exhibited the Maria Adison, beautiful crimson Dahlia, a seedling produced by G. B. Smith.

Mr. John McKim, jr. presented the Daniel Webster, a splendid scarlet Dahlia, produced from seed by G. B. Smith.

Mr. James Wilks exhibited fine specimens of metrosidorus semperflorens in full bloom, hoya carnosa in bloom, double oleander, &c.

Mr. Henry Schroeder exhibited specimens of calicorpa Americana, Arum esculentum, &c.

Mr. E. P. Thomas exhibited a very fine plant of the cedar of Goa, said to be the largest in the country, cycas revoluta, ficas elastica, camellia oleifera, ruellia speciosa, nerium coronarium, &c.

Mr. B. I. Cohen presented several fine boquets of flowers.

Mrs. Emory presented the following Dahlias, viz:—Carlo Delia, yellow tipt with scarlet; Lord Lyndhurst, dark maroon; Dwarf pink; Theodore, beautiful lilac, Black prince; Groombirdges' Matchless, very dark purple, with several fine seedlings, boquets of flowers, &c.

Mr. Zebulon Waters exhibited several fine varieties of oxalis, calceoiaria salvifolia, amaryllis coccinia or bright scarlet, in full bloom, &c.

Mrs. Geo. W. Riggs presented numerous large boquets of beautiful varieties of roses and other flowers.

Mr. Robert Sinclair exhibited the following Dahlias, viz:—Cambridge surprise, dark lilac, Royal lilac, Prince's transcendant, &c. all very large and beautiful specimens, daily roses, &c.

Mrs. Wm. H. Freeman presented varieties of tea roses, single white camellia in flower, &c.

Miss Eliza Schroeder exhibited beautiful specimens of oak leaves with drawings of butterflies, &c. in the substance of the leaves.

Mr. Edward Kurtz exhibited the following Dahlias in pots in full bloom, viz:—Bonny Dee, a beautiful rich scarlet, Purple Globe, and Stephenia, all very fine. Also, crowea saligna, a new and very pretty plant, in flower; black and green tea plants in flower; ardisia crenata; tea roses, &c. and several boquets of cut flowers.

Mr. Henry Didier presented the *King of the Whites*, a splendid pure white Dahlia, and amongst the finest in the room.

Mrs. Muschett presented several large and splendid specimens of the Claudius Cæsar, a very rich scarlet, and several other varieties of fine Dahlias.

Mr. Hugh Brickhead presented some very fine Dahlias and boquets of flowers.

Mrs. Edmondson presented several fine boquets of flowers.

Mr. Henry Thompson presented a boquet of fine Dahlias.

Mr. E. W. Colburn presented a boquet of flowers.

Mr. I. I. Hitchcock presented some beautiful varieties of Dahlias.

Fruit and Vegetables exhibited.

By Mr. Samuel Feast, several very fine specimens of long green cucumbers.

By Thomas Dorsey, very fine salsify, carrots, parsnips, red pickling cabbage, chocolate corn, &c.

By Peter Nantz, crook neck winter squash, carrots, red top turnips, &c.

By Richard Vallentine, very superior large Lima beans, yellow raddish, &c.

By Peter Coombs, winter crook neck squash, very fine.

By Thomas Dixon, very superior carrots, parsnips, and beets, salsify, Lima beans, very large and fine, fine egg plants, &c.

By Caleb Whittemore, superior Mercer potatoes, long blood beets, scarlet and white radishes, long green cucumbers, winter crook neck squashes, very fine—one of them a *twin* red pickling cabbage, early purple cape brocoli, onions, &c.

By Robert Sinclair, Sen. winter crook neck squashes of the genuine kind, Mangold Wurtzel fair specimen of the roots selected for seed, specimens of the genuine long blood beet, Swiss chard, potato pumpkin, yellow summer radishes, &c.

By Gideon B. Smith, a specimen of the *Turnip Bean*, a new vegetable, which bids fair to become a valuable addition to our kitchen garden products. The plant resembles ordinary climbing beans, while the roots are similar to turnips; the flavor when cooked very fine, and excellent when eaten raw. Also some fine specimens of gourds of superior form.

By Mr. Edward Doran, specimens of superior celery of large size and well blanched.

By Mr. Henry Thompson, fine tomatoes, celery, &c.

By Mr. Peter Johnson, sweet potatoes, fine egg plants, tomatoes, carrots, &c.

By Mrs. Wm. J. Alcock, two peaches, weighing 11 oz. and 9 oz. remarkably fine specimens, from a seedling tree, apparently of the Heath variety. This peach will be a great acquisition to the orchadist from its ripening 3 weeks later than any known variety as yet in Maryland. The fruit is large, well flavored, and of a mottled red next the sun, which gives it the appearance of fruit ripened the 1st of September. This excellent fruit might have remained unknown except to its possessor, but for the existence of the Horticultural Society.

By Mr. Hugh Birckhead, a very large peach, weighing 17 ounces—a splendid Heath.

By Mrs. John Lester, some very fine pomegranates.

By Mr. Valentine, some very fine ripe figs, and purple Scuppernong grapes, good specimens for the climate.

By Mrs. B. I. Cohen, a basket of fine Isabella grapes.

By Mr. Zeb. Waters, a basket of excellent bland grapes, and specimens of bitter orange.

By Miss Eliza Schroeder, a plate of fine figs.

By Mr. Augustus Hack, fine specimen of the dwarf red pomegranate in bloom.

By Mr. Joseph King, jr. a large plant of the red pomegranate in full fruit.

By Mrs. W. H. Freeman, a very large plant of the white pomagranate with fine fruit, variegated orange in fruit, St. Helena lime in full fruit, &c.

GIDEON B. SMITH, Cor. Sec'y.

MISCELLANEOUS.

Tomatoes Preserve.

Mr. Editor. The tomato is favorably mentioned in your last number: it is a valuable vegetable. But I do not recollect, that in the variety of use to which it has been applied, your paper assigns it any place among the different species of preserves. As we are deprived this season of that pride of the fruit of Georgia, the *peach*, it may be of service to housekeepers to know that the tomato forms a most admirable substitute for the peach as a preserve. The flavor is almost precisely the same—it looks as well, and is altogether an excellent article for the tea table.

Directions.—Take good ripe tomatoes—peel them and preserve them with good brown or loaf sugar. If not peeled they burst, and do not retain the consistency so much desired by housekeepers, though they are very good without peeling. I give you this, at this time, that the industrious of the fair hands about your flourishing town may profit by it, before *Jack Frost* shall cut off their hopes from this new source of table ornament and luxury.—*Southern Planter.*

What o'clock is it?

When I was a young lad, my father one day called me to him that he might teach me how to know what o'clock it was. He told me the use of the minute finger and the hour hand, and described to me the figures on the dial plate, until I was pretty perfect in my part.

No sooner was I quite master of this additional knowledge, than I set off scampering to join my companions at a game of marbles; but my father called me back again: "Stop, Humprey," said he, "I have something more to tell you."

Back again I went, wondering what else I had got to learn, for I thought I knew all about the clock, quite as well as my father did.

"Humphrey," said he, "I have taught you to know the time of the day, I must now teach you how to find out the time of your life."

All this was strange to me, so I waited rather impatiently to hear how my father would explain it, for I wanted sadly to go to my marbles.

"The Bible," said he, "describes the years of man to be three score and ten, or four score years. Now life is very uncertain, and you may not live a single day longer; but if we divide the four score years of an old man's life into twelve parts, like the dial of a clock, it will allow almost seven years for every figure. When a boy is seven years old then it is one o'clock of his life, and this is the case with you; when you arrive at fourteen years it will be two o'clock with you; and when at twenty-one years, it will be three o'clock, should it please God thus to spare your life. In this manner you may always know the time of your life, and looking at the clock may, perhaps, remind you of it. My great grandfather, according to his calculation, died at twelve o'clock; my grand father at eleven, and my father at ten. At what hour you and I shall die, Humprey, is only known to Him to whom all things are known."

Never since then have I heard the inquiry, "What o'clock is it?" nor do I think that I have even looked at the face of a clock, without being reminded of the words of my father.

I know not, my friends, what o'clock it is with you, but I know very well what time it is with myself; and that if I mean to do any thing in this world, which hitherto I have neglected, it is high time to set about it. The words of my father have given a solemnity to the dial plate of a clock, which it never would perhaps have possessed in my estimation, if these words had not been spoken. Look about you, my friends, I earnestly entreat you, and now and then ask yourself what o'clock it is with you.

Culture of Sugar and Cotton.

On the comparative advantages of the culture of sugar and cotton, it may be remarked, sugar has been, and now is, depressed, but improving, with a good prospect of a gradual and steady advance, not only by reason of an increased and rapidly increasing home consumption, but from the decline of foreign competition, in consequence of the late measures of the British Government, concerning slavery in their West India Islands.

Cotton, on the other hand, has been for some years past the favorite and most profitable staple, and has probably attained its *acme* of success, and must soon decline from the excess of product and competition, both at home and abroad. Cotton is dependent upon foreign markets, while the sugar of the United States cannot supply the home market for half a century to come. In war, Cotton would not pay for the culture, while in war the price of sugar would more than double—so that to the new adventurer a serious question is presented, as to which of the two pursuits, *at this time*, would offer to him the most certain chance of success.

Composition for coloring and preserving gates, pales, barns, &c.—The following composition has been recommended, and is generally believed to be a cheap and excellent coloring, and preservative of gates, pales, barns, &c.

Melt twelve ounces of rosin in an iron pot, or kettle: and three gallons of train-oil, and three or four rolls of brimstone. When the rosin and brimstone are melted, and become thin, add as much Spanish brown, or red or yellow oker, (or any other color you want—ground fine, as usual, with oil) as will give the whole as deep a shade as you like. Then lay it on with a brush, as hot and as thin as you can. Some days after the first coat is dried, give it a second.

It is well attested, that this will preserve plank for ages; and prevent the weather from driving through brick-work.

Round Shot.—A correspondent in the United States Gazette gives the following as the origin of the discovery of making round shot:

"My father was a plumber in this city, and for a long time could think of nothing but how to make *round shot. Round shot* was the burthen of the night as well as the day. One night he was awakened by a blow in the back from my mother, who exclaimed, I have found out how to make round shot. I dreamed I was going into a shop to buy the child (myself,) a hat, when, on hearing a hissing noise proceed from an inner room, I was informed that they were making round shot; on going in, I looked up, and saw a man pouring melted lead through a sieve at the top of the building, which fell into a tub of water on the floor, and on taking some of the shot in my hand, I found they were perfectly round! My father exclaimed in ecstacy, you have found it out—immediately he set the melting pot to work, and on pouring some of the lead from the top of the stairs he found the shot much rounder than any which he had before made; at day light he poured some from the top of the leaning tower in the city, succeeded much better; and on pouring some from the shaft of a mine, he found that he had obtained "*round shot.*"

Thus the discovery was made by Mrs. Watts, and in justice it ought always to have been known as Mrs. Watts' patent shot.

Rice Griddle Cake.—Boil one large cup of whole rice quite soft in milk, and while hot stir in a little flour, rice flour, or Indian meal; when cold, add two or three eggs, and a little salt. Bake in small thin cakes on the griddle.

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BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
BRANDY, Apple,	gallon.	$0 36	$—
Peach,	"	75	—
BEANS, white field,	bushel.	—	—
BEEF, on the hoof,	100lbs.	4 00	5 00
CORN, yellow,	bushel.	72	74
White,	"	72	74
New,	"	—	67
COTTON, Virginia,	pound.	13	14
North Carolina,	"	12	15
Upland,	"	14	16
FEATHERS,	pound.	35	38
FLAXSEED,	bushel.	—	1 50
FLOUR—Best white wheat family,	barrel.	6 25	6 75
Do. do. baker's	"	5 75	6 25
Do. do. Superfine,	"	5 00	5 25
Super Howard street,	"	5 12	5 25
" " wagon price,	"	5 00	5 18
City Mills, extra,	"	5 12	5 25
Do.	"	5 00	5 12
Susquehanna,	"	5 25	—
Rye,	"	—	—
GRASS SEEDS, red Clover,	bushel.	5 00	5 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	3 00	3 50
Tall meadow Oat,	"	2 00	2 50
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	—	17 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
LIME,	bushel.	30	33
MUSTARD SEED, Foreign,	"	3 00	4 50
Domestic,	"	5 00	6 00
OATS,	"	31	33
OIL, linseed,	gallon.	93	95
Castor	"	1 50	1 62
PEAS, red eye,	bushel.	—	—
Black eye,	"	85	—
Lady,	do	—	—
PLASTER PARIS, in the stone,	ton.	2 94	3 00
Ground,	barrel.	1 37	—
PALMA CHRISTA BEAN,	bushel.	1 50	1 56
RAGS,	pound.	3	4
RYE,	bushel.	67	68
TOBACCO, crop, common,	100 lbs	3 50	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	13 00	17 00
" fine yellow,	"	15 00	25 00
Seconds, as in quality,	"	3 50	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	4 00	—
Rappahannock,	"	—	—
Kentucky,	"	4 00	9 00
WHEAT, white,	bushel.	1 05	1 14
Red,	"	1 00	1 06
WHISKEY, 1st pf. in bbls.	gallon.	32	33
" in hhds.	"	—	30½
" wagon price,	"	27	28
WAGON FREIGHTS, to Pittsburgh,	100 lbs	—	1 50
To Wheeling,	"	—	1 75
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	50 *to* 60	24 *to* 26
Full Merino,	"	44 50	22 24
Three fourths Merino,	"	37 44	22 24
One half do.	"	33 37	21 22
Common & one fourth Meri.	"	30 33	18 20
Pulled,	"	31 33	20 22

BLOODED CATTLE.

ONE thorough bred Bull and one Heifer of the improved Durham S. H. breed, whose pedigree as well as appearance prove them to be valuable animals, one year old last Spring, may be had for two hundred and fifty dollars, if taken immediately. Also, several Bulls and one Heifer of alloyed blood, for sale very *low*, if immediately applied for at this establishment. oct 28

GAMA GRASS SEED

JUST received, and for sale at this Establishment—Price 50 cents per ounce.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	$2 50	$5 00
BACON, hams,	pound.	11	—
Shoulders,	"	—	10
Middlings,	"	—	10½
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	15	22
CIDER,	barrel.	—	4 00
CALVES, three to six weeks old	each.	4 00	7 00
COWS, new milch,	"	22 00	30 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 56	1 62
CHOP RYE,	"	1 56	1 62
EGGS,	dozen.	15	—
FISH, Shad, salted,	barrel.	5 75	6 00
Herrings, salted, No. 1,	"	4 75	—
Mackerel, No. 1, 2 & 3,	"	4 75	6 75
Cod, salted,	cwt.	2 50	3 00
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	31	50
LARD,	pound.	10	12
ONIONS,	bushel.	62	—
POULTRY, Fowls,	dozen.	—	2 50
Chickens,	"	1 75	2 00
Ducks,	"	—	2 50
POTATOES, Irish,	bushel.	45	56
Sweet,	"	62	75
TURNIPS,	"	50	56
VEAL, fore quarters,	pound.	7	—
Hind do.	"	8	—

ADVERTISEMENTS

ORCHARD GRASS SEED.

A few bushels just received and for sale by the subscriber, at $3 per bushel. I. I. HITCHCOCK,
no 4 American Farmer Establishment.

FARMERS' REPOSITORY,

NO. 36 PRATT STREET,
Between Hanover and Charles street.

THE subscriber has been engaged for the last eighteen months adding improvements to his establishment, and now believes it to be equal in extent and convenience to any other establishment of the kind in the United States, and is prepared to fill any orders in his line on as reasonable terms, taking into consideration the quality of his work. It is his determination to procure the best materials, and to have the workmanship executed in the best possible manner, and to keep a general assortment of such implements of husbandry as give the most general satisfaction to farmers. It may be well here to observe, that there are constantly alterations making in Ploughs and other implements, which are no improvements, and are only calculated to give the purchaser double trouble by increasing his varieties without improvement—but all useful improvements the subscriber will continue to adopt as heretofore. I have on hand a large stock of implements, which I offer to the public, among which is my patent Cylindrical Straw Cutters, of various sizes, and prices.—These machines have been in operation 12 years, during which time I have sold nearly seven hundred of them, and I believe that no machine has ever been introduced that has given more general satisfaction. I have a large stock of Ploughs, of various kinds and sizes, wrought and cast shares, the most approved kinds of Wheat Fans, Corn Shellers, Harrows, Corn and Tobacco Cultivators; Rag Cutters, for Paper mills, Fox & Borland's Patent Threshing Machines, improved by myself, also, one of Z. Booth's Threshing Machines, with stationary horse power; Hay and Manure Forks; Tanner's Forks; Spades and Shovels; Field and Garden Hoes, Grubbing Hoes, Picks and Mattocks, Briar Hooks, Hay Knives, Caststeel Narrow and Broad Axes; common Straw Cutting Knives, &c.; and all kinds of Plough and Machine Castings, to suit Ploughs and Machines, made by me, kept constantly on hand; and all repairs done at short notice.

Also—will be kept constantly on hand, at retail, a general assortment of the Messrs. Landreth's celebrated GARDEN SEEDS—likewise, all kinds of Grass and other Fields Seeds, when they can be obtained of good quality.

A liberal discount will be made on my implements to those who purchase to sell again.

Oct. 28. 2t J. S. EASTMAN.

FRUIT AND ORNAMENTAL TREES.

THE subscriber has now for sale, at the Bartram Botanic Garden and Nursery, near Gray's Ferry a very extensive assortment of the finest ORNAMENTAL TREES, of all sorts suitable for planting in streets or avenues.

FRUIT TREES, of every good variety.
Hardy Flowering Shrubs and Evergreens.
Herbaceous Plants, Bulbous Roots, &c.
MEXICAN DAHLIAS, of 276 varieties.

ALSO,

A very large collection of the finest GREEN HOUSE PLANTS, including upwards of 1000 Camellia Japonicas of 80 varieties, 5000 Roses of 250 varieties, (chiefly new and hardy sorts,) 2000 Geraniums, of 130 varieties, with every other sort of plants usually cultivated for sale; all of which will be disposed of at moderate prices, and a liberal discount allowed to gardeners or others, who buy to sell again.

Collections of AMERICAN SEEDS or PLANTS put up for Europe, or elsewhere, in such manner as to ensure their safe transportation.

Orders per mail, or left at the store, No. 21 Philadelphia Arcade, will be promptly attended to, and plants carefully packed and forwarded agreeable to directions to any part of the United States.

ROBERT CARR.

*** When purchasers desire it, suitable persons will be furnished to plant, at moderate charges.
nov 4. 4t.

PEA FOWLS.

ONE pair 2 years old, and one pair 3 years old, for sale at this establishment. Price $3 a pair. no 4

LINNÆAN GARDEN AND NURSERIES,

FLUSHING NEAR NEW YORK.

WM. PRINCE & SONS have just published their *New Catalogue with greatly reduced prices*—application therefor must be made *direct to them per mail*. Every Department of the Establishment is in the most perfect condition in regard to the accuracy and superiority of its productions—and strangers are solicited to visit it and judge for themselves. The Fruit Trees are of large size, and in the most vigorous state, suitable for Orchards where prompt bearing is desired. Among these are the fine New Flemish Pears. Ornamental Trees and Flowering Shrubs can be furnished of the largest size, worth treble the price of small ones, as several years are thus saved in embellishment. The collections of Green House Plants, and hardy Flowering plants are particularly rich and interesting. The assortments of Roses and Double Dahlias comprise all the new splendid varieties, and each collection occupies above an acre of ground. Splendid Dahlias will now be supplied at $3, $4½ and $6 per dozen—each root a distinct named variety selected by us.—Of Bulbous Flower Roots the stock is so greatly increased, that they will be sold at very low rates.

Where a large number of trees, &c. is ordered, a discount will be made, and a credit allowed if so desired. The owners of nurseries and other venders of trees and seeds will be supplied at a liberal discount, and a convenient credit.

The assortment of garden, field and flower seeds, is exceedingly extensive, and forms a complete concentration of the choicest varieties known in Europe, and this country, all of which have been raised under our own inspection, or grown expressly for us, by our European correspondents. Their accuracy and excellence are expressly guaranteed, and *we ask no payment where the seeds do not prove exactly as represented*. Among the field seeds are the following: Perennial Ryegrass, New Italian do., Lucerne, Dutch White Clover, early Angus Oats, English Potatoe Oats, weighing 44 lbs. per bushel, Orchard Grass, tall Oats Grass, Trifolium Incarnatum, or early Crimson Clover, and 100 bushels Taylor's Forty fold Potatoe, also 50 bushels Potatoe Onions.—Venders of seeds, will be supplied at the most moderate rates possible, and at a credit to comport with their convenience.

Orders sent *direct per mail*, will have immediate dispatch, and every invoice emanating from us, has our *printed heading*, and *signature* and *no others are guaranteed*.
oc 21 3t

Printed by SANDS & NEILSON, South East corner of Calvert and Market-streets.